AMENDMENT TO THE CLAIMS:

This listing of claims will replace all prior versions of claims in the application:

LISTING OF CLAIMS:

1. (ORIGINAL) A semiconductor Type Two phased locked loop filter having a passive capacitor part and an active resistor part; said active resistor part being integrated with the passive capacitor part.

2. (ORIGINAL) The filter as in claim 1 wherein the active resistor is a standard FET device.

3. (ORIGINAL) The filter as in claim 1 wherein the active resistor is continuously variable.

4. (CURRENTLY AMENDED) ~~The filter as in claim 1~~ A semiconductor Type Two phased locked loop filter having a passive capacitor part and an active resistor part; said active resistor part being integrated with the passive capacitor part, wherein the Type Two phased locked loop filter operates from a voltage and the active resistor part is controlled by a regulator circuit operating from a voltage that follows the type two phased locked loop voltage.

5. (ORIGINAL) The filter as in claim 4 wherein the regulator circuit is bootstrapped to the phased locked loop voltage using a voltage follower configured op-amp.

6. (ORIGINAL) The filter as in claim 4 wherein the phased locked loop filter has a current and regulator circuit comprising a current source and a voltage source wherein

the current source is tied to the phased locked loop filter current and the voltage source is used to tune the active resistor.

7. (ORIGINAL) The filter as in claim 4 wherein the phased locked loop filter has a current and regulator circuit comprising a current source and a voltage source wherein the voltage source is tied to the phased locked loop voltage and the current source is used to tune the active resistor.

8. (ORIGINAL) The filter as in claim 1 wherein all the parts are made in the same CMOS manufacturing step.

9. (ORIGINAL) A semiconductor phased locked loop system comprising:

a charge pump;

a voltage controller oscillator; and

a Type Two filter comprising a passive capacitor part and an active resistor part, said active resistor part being integrated with the passive capacitor part.

10. (ORIGINAL) A method of manufacturing a semicondutor Type Two phased locked loop filter comprising:

providing a passive capacitor part and an active resistor part; said active resistor part being integrated with the passive capacitor part.

11. (CURRENTLY AMENDED) A method as claimed in claim 10 wherein all the parts are made in the same CMOS manufacturing step whereby no special steps for including ~~passive~~ resistor components is required.

12. (NEW) The filter as in claim 1 wherein a resistance of the active resistor is controlled by a feedback loop coupled to an input of the active resistor.

13. (NEW) The filter as in claim 1 wherein a capacitor is positioned between a drain side of the active resistor and ground.

14. (NEW) The filter as in claim 1 wherein the passive capacitor part includes two capacitors, wherein the filter has two poles, wherein the active resistor adjusts the poles simultaneously.

15. (NEW) The filter as in claim 1 wherein the passive capacitor part includes two capacitors, wherein the active resistor is coupled parallel to a capacitor not directly coupled to ground.